BASF Aktiengesellschaft
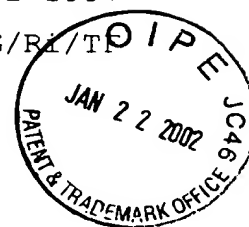
Abstract

1. Use of at least one ester of the formula (I) to (V)

$$B \Bigl\langle \begin{array}{l} OR^1 \\ OR^2 \\ OR^3 \end{array}$$

(I)

$$O = C \Bigl\langle \begin{array}{l} OR^1 \\ OR^2 \end{array}$$

(II)

$$O = P \Bigl\langle \begin{array}{l} OR^1 \\ OR^2 \\ OR^3 \end{array}$$

(III)

$$\begin{array}{c} O \\ \| \\ S \\ \| \\ O \end{array} \Bigl\langle \begin{array}{l} OR^1 \\ OR^2 \end{array}$$

(IV)

$$\begin{array}{c} R^4O \\ R^3O \end{array} Si \begin{array}{l} OR^1 \\ OR^2 \end{array}$$
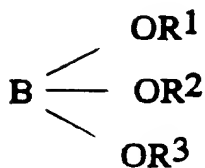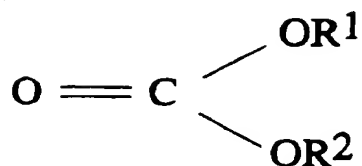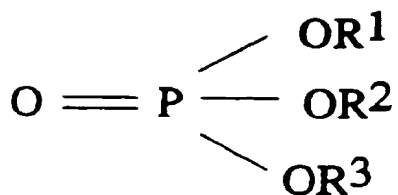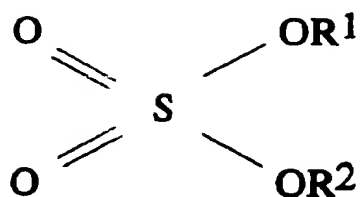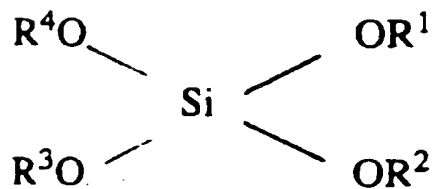
(V)

where R^1, R^2, R^3, R^4 are identical or different and each, independently of one another, are a linear or branched-chain C_1- to C_4-alkyl, $(-CH_2-CH_2-O)_n-CH_3$ with $n = 1$ to 3, a C_3- to C_6-cycloalkyl, an aromatic hydrocarbon group which in turn can be substituted, with the proviso that at least one of the groups R^1, R^2, R^3 or R^4 is $(-CH_2-CH_2-O)_n-CH_3$ with $n = 1$ to 3,

is used as a solvent in electrolyte systems for Li-ion storage cells.